

VENEREAL DISEASES IN THE TROPICS*

BY

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It is now 34 years since I began to take an interest in venereal diseases in the tropics. From 1917-18, as a company officer in the Gold Coast Regiment, then on active service in German East Africa (now Tanganyika), I could not fail to notice that, whereas gonorrhoea was a fairly usual complaint among our men and epididymitis a not uncommon cause of invalidism, ulcers of the genitals were decidedly rare and that, when they did occur, the patient was always sent down the line for treatment. Our medical officer had impressed us all with a horror of syphilis and of the dangers of accidental infection to ourselves, and both he and the regimental officers conducted frequent inspections, in the course of which a fair amount of gonorrhoea but hardly any syphilis was detected. The men, however, knew from frequent "pep talks", what we were looking for, and occasionally attempted to produce counterfeit chancres, and thus obtain a holiday in a base hospital, by applying the juice of the Euphorbia tree to their genitals, a malingering technique which I understand was repeated in West Africa during the late war. Though my interest then was more practical than scientific, I still have a definite recollection of the rarity of syphilis and the comparative frequency of gonorrhoea among our soldiers, who were not slow to take advantage of the endless opportunities for venery in the villages through which we passed.

Thirty years later, in 1948, I was privileged to spend some 8 weeks in Kenya, Uganda, and British Somaliland, as one of the Nuffield Medical Visitors, since when I have read and thought much about the venereal disease problem in these territories. Though this visit was short, I had the opportunity of seeing a great deal, and, perhaps just as important, of talking a great deal to doctors in the Colonial Medical Service, European and Indian private practitioners, medical missionaries, administrators, and native chiefs; and, though I am aware that

there must be many who know more about the subject than I do, the fact that my bird's-eye impressions were to a great extent in line with those of so many experienced workers on the spot, encourages me to pass them on (McElligott, 1949).

Historical and Social Aspects

With regard to the history of V.D. in East Africa, gonorrhoea is considered to have existed in most parts of these territories from time immemorial, whereas syphilis is thought to have been introduced to the coastal towns by the Arabs in the middle of the 19th century and to have remained a comparatively rare disease until the late 1890s. It must be remembered that, before the railway was built from Mombasa, through Nairobi, to Lake Victoria Nyanza and thence on to Uganda, communication with the hinterland was a difficult and dangerous business. There were no roads, and lions and other beasts of prey were an effective deterrent to extensive travel. True enough, Arabs from Mombasa, Dar-es-Salaam, and Zanzibar raided the interior for slaves, but these raids appear to have been swift quasi-military operations and it is not thought that they were responsible for any serious spread of disease. At any rate, most of them did not reach far, as the warlike Masai straddled the central plains and it is fairly certain that dalliance with *their* womenfolk would have been firmly discouraged.

The greatest obstacle to the spread of venereal infections in the past was undoubtedly the rigid tribal customs and taboos, with their severe sanctions against promiscuity, especially among women, and it is a sad paradox that the advent of European traders and missionaries, representing different facets of European behaviour, has resulted in a too rapid detribalization, with the consequent emancipation of women and dropping of punishment for breaches of the sexual code. Those Europeans who are living nearest to the African, the mis-

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sionaries, seem to agree that the substitution of the idea of self-control for tribal control will take generations to accomplish, and many of them genuinely regret that some of the deterrent tribal customs have disappeared so rapidly.

Gonorrhoea is ubiquitous and syphilis is now extremely common throughout the length and breadth of detribalized tropical Africa. Syphilis is now rapidly penetrating the tribal areas, being carried there by workers returning home after spells of work in the towns, and in the vast healthy uplands of Kenya settled by Europeans, where native settlement is not permitted and prostitution is consequently rife. The long incubation period of syphilis adds to the difficulty of detecting infection in these returning workers who, like troops returning from foreign service, too often celebrate the start of their leave by a farewell fling.

Incidence of Various Diseases

Although the prevalence of the venereal diseases in tropical Africa is known to be very high, the task of estimating its true incidence, and the size and shape of the problem it presents, with any accuracy, is beset with many difficulties. Chief among these are :

The primitive state and relative inaccessibility of so many sufferers.

The fact that both syphilis and gonorrhoea are essentially prone to chronicity and are characterized by long, symptomless, but nevertheless infectious, periods.

The fact that, generally speaking, the African will only complain of a condition that is visibly obvious or painfully inconvenient.

Few surveys, even sample ones, have been made and such as have been attempted have usually been spoilt by shortage of time, equipment or personnel.

Gonorrhoea.—As I have already said, gonorrhoea is ubiquitous all over Africa, but it is particularly prevalent in those localities where men are working away from their homes or where troops have been or are stationed. The few women in these areas are almost invariably promiscuous, and it is fairly certain that not far off 100 per cent. are infected. Bettley (1945) showed that 63 per cent. of a large number of prostitutes at a military station in Kenya were gonococcus positive on smear diagnosis alone. Gonorrhoea is undoubtedly an important public-health problem, as salpingitis is a common cause not only of sterility but also of a good deal of genuine invalidism. I noticed also, particularly in Uganda, a surprisingly large number of patients admitted to hospital with retention of urine due to stricture. There seemed to be no satisfactory

explanation to account for this high incidence of stricture, as "bush" medicine does not favour caustic or irritant urethral instillations, and I can only conclude that it may be due to an accentuation and perpetuation of the chronic stage by frequent sexual intercourse before cure. In most cases complete excision of the stricture is the only practicable treatment because so many of the patients live too far away from hospitals to attend regularly for dilatations. The results of this treatment seem to be excellent and I am convinced that it is a life-saving measure of the first importance.

Arthritis with gonorrhoea is occasionally seen but is nothing like as common as one would expect. Nor is primary non-gonococcal urethritis by any means as frequent as in Great Britain, and these two facts may perhaps support an opinion I have held for some time, namely, that arthritis occurring during or after an attack of gonorrhoea is not necessarily caused by the gonococcus but can be due to a viral or non-gonococcal bacterial infection concomitantly acquired.

Syphilis.—In a survey made in the first decade of the 20th century the two R.A.M.C. officers Lambkin and Keane claimed that syphilis was even then a common disease in Uganda (Keane, 1912), and though their work was unaided by serology and microscopy, some of the photographs they took were said to support their contention. In Uganda today, however, well-informed medical opinion feels that syphilis did not become disseminated until well on in the inter-war period, and that Lambkin's and Keane's descriptions and photographs often seem to point to yaws rather than syphilis. If this be so in fact, the disease is still young in Uganda. Dr. J. C. D. Carothers (Medical Superintendent of the Mathari Mental Hospital near Nairobi), thinks that this is also the case in many parts of Kenya and that an increase in the number of late and lethal complications is to be expected, especially in view of the great increase in early syphilis which occurred during the late war (Carothers, 1947).

The co-existence of yaws can certainly make the diagnosis of syphilis a difficult task. Sero-diagnosis and microscopy being too often of no help in the differentiation of the two diseases, the applicability of the treponemal immobilization test for this purpose still remains to be seen. Nevertheless, the experienced worker has little difficulty in distinguishing the early lesions of each disease, and it is chiefly in the tertiary and latent stages that it is impossible to tell one from the other. Even then, the geographical locality and the typical scars of early yaws persisting from childhood often indicate

the probable diagnosis. A glance at the map of Uganda will show what I mean by "geographical locality". In the South of the protectorate syphilis is very common and yaws rare, whereas in the North, particularly in the swampy Lira district, yaws is seen everywhere and syphilis as we know it, though becoming yearly less uncommon, is still a comparatively unusual disease. I am reluctant to give the "unitarian hare" a run, although I for one see nothing but sense in the decision of WHO to lump together those four or more diseases, which are caused by similar organisms and treated by the same specifics, under the generic name of "treponematoses", especially for "strategic" purposes in those districts where the conditions exist side by side, and where a campaign is in progress against them.

It has, I think, been too strongly held that syphilis in the tropics is chiefly a dermatropic infection and that it rarely affects the cardiovascular and nervous systems. The number of tabetics, paralytics, and cardiac syphilitics is small compared with the number of patients showing skin lesions, but we must not forget that the primitive African will usually only complain of signs he can see or of symptoms that hurt. His average life span is far shorter than that of the European, and the candidate for late syphilis of the vital systems will often die of an intercurrent disease before his syphilis forces him to seek treatment. I was interested to learn that syphilis has now been shown to be responsible for 30 per cent. of all cases of insanity at Mulago Hospital, Kampala, and I was told at this and other hospitals that cases of meningo-vascular syphilis are by no means uncommon. In two large series of autopsies made by Dr. J. N. P. Davies, pathologist to this hospital, *post-mortem* evidence of syphilis was found in 11.2 per cent. of the first series (2,994 cases), and in 16 per cent. of a later series (460 cases). Over 60 per cent. of the syphilitics in both series showed evidence of aortitis, and macroscopic evidence of neurosyphilis appeared in 44.5 and 48 per cent. respectively (Davies, 1947).

It is my own view, and that of many of those who are working closer to the problem, that acquired syphilis seems to run much the same course in Africa as it does elsewhere. Here, the paralysed, insane, or cardiac patient finds his way to hospital, in Africa he usually returns home to be cared for by his tribe. In 1950 Dr. D. H. McKay completed a short V.D. survey among a section of a particularly self-contained tribe of nomadic cattle ranchers, the Masai. In 1931, Dr. Philips found the incidence of syphilis in this tribe to be trivial. McKay (1950) records an alarming increase, though he found little or no evidence of symptomatic

late infection. He does not dismiss the possibility that the disease may be running a more benign course than usual, but he is inclined to believe that the increase may still be too recent for tertiary manifestations to have had time to develop.

It is an unexplained paradox that congenital syphilis seems still to be rare throughout tropical Africa. This is certainly not the case in other parts of the tropics, such as India and the Far East, where it is a common cause of infantile death and sickness. Nevertheless, abortion is very common and it seems possible that for reasons yet unknown the infected foetus fails to reach maturity. It is also possible that syphilis in women is often acquired in childhood or adolescence and becomes relatively quiescent during the childbearing years. Be this as it may, interstitial keratitis, nerve deafness, and Hutchinsonian teeth are hardly ever seen. Periostitis of the long bones is a common manifestation of yaws in children, and is, by itself, almost indistinguishable from the similar syphilitic condition. The geographical location, however, and other confirmatory evidence of yaws is usually helpful in making up one's mind in these cases.

Other Venereal Diseases.—With regard to the essentially tropical diseases, lymphogranuloma venereum and granuloma inguinale, neither of which seems to constitute a serious public health problem, the former is met with throughout Kenya, Uganda, and Tanganyika, and I saw several female cases of stricture of the rectum in the Mulago Hospital, Kampala. Most early male cases of lymphogranuloma seem to respond well to sulphonamides. Granuloma venereum is also seen but is a rare enough disease and seems to be largely confined to the coastal areas. In 1948 streptomycin was as hard to obtain in East Africa as aureomycin is in England to-day, although during my stay a visiting United States naval surgeon was able to provide some for the treatment of a solitary case in Mombasa.

Control of Venereal Diseases

Conditions for the spread of V.D. throughout tropical Africa are becoming extremely favourable. Communications are improving rapidly, and population movements are increasing as a result. Men, and to a lesser extent women, are leaving their homes and tribal areas in search of more remunerative work in the towns, and in Kenya, in areas settled by Europeans. Prostitution, which is common in such places, is not yet regarded as socially, still less as morally, undesirable. In fact, I heard it said in Kenya that brothels for hired labourers were a good thing, otherwise there was no telling "what they mightn't be up to"! The

unslakable thirst for what the African calls education, which seems chiefly designed to make clerks out of food-producers and to teach them enough English to appreciate talkie dialogue, also plays its part, and I was surprised to note how many English-speaking Africans in Kampala, the capital city, seemed to become infected.

In Africa, perhaps even more than in England, venereal diseases are social diseases *par excellence*, and any project for their control which neglects this fact is foredoomed to failure. As far as treatment goes, we now have in penicillin an ideal therapy which in both infections can be completed before the symptoms disappear and I am glad to hear that increasing amounts of PAM are becoming available, and that in Kenya the one-shot treatment of early syphilis as well as of gonorrhoea is being used. If and when it becomes universally understood that mass treatment of men is useless unless the female sexual partners are sought, found, and simultaneously treated, then, and only then, will the present apparently insoluble problem be on its way to solution.

For a start, the problem of prostitution in the towns and settled areas will have to be tackled and severe laws against this evil enacted and enforced. If this is to be effected, it follows that some attempt will have to be made to house the wives and families of workers in these areas and to encourage that greatest enemy of venereal disease, family life. I fully appreciate the political and financial implications as well as the difficulties of even proposing such a policy, but nevertheless I believe it to be the right one. Lyautey in Morocco showed us how a French and a Moorish town can prosper side by side and I feel that the same system might have succeeded and may even yet succeed in parts of tropical Africa.

The first duty of a whole-time experienced V.D. control officer in a given territory (a *sine qua non* for the success of any anti-V.D. campaign) will be to train and lead a mobile survey and demonstration team. This team should include not only technical personnel but also native social workers and contact tracers. The team would first visit hyperendemic areas to collect information and to demonstrate modern methods of diagnosis and treatment, always bearing in mind the maxim that the reservoir of infection of both diseases lies in Africa as elsewhere in the untreated female, and that it is a mere waste of time casually to treat the promiscuous male. Attached to such a team during its stay in a district would be local duplicates of both its social and technical members who would be able to carry on the good work under the District Medical Officer when the team moved

on to another area. I should like to take this opportunity of paying a sincere tribute to the selfless work of the District Medical Officers of the Colonial Medical Service which I have seen at close quarters, and which I look forward to seeing again this year. Their work in a service which is not only under establishment, but also under-established, is quite beyond praise. The D.M.O. has a superlatively interesting job, but the pity of it is that there are not half enough of his kind to do it. Up to the present he has had all the frustrations attendant on a task that is too big for any one man to undertake singlehanded, and it is particularly noticeable that the better the man the more he feels his position. It is, I think, greatly to the credit of the Service that its practising doctors in such circumstances so rarely adopt the complacent and cynical defeatist attitude, the refuge of the third-rater. Those of us who served in H.M. forces during the war remember how medical manpower was conserved by the appointment of trained laymen as hospital adjutants, quartermasters, technicians, and other ancillaries. In the Colonial Medical Service a few trained European sanitary inspectors are already employed with conspicuous success. These men, who are to all intents assistant medical officers of health, do sterling work in the prevention of disease. There is, I think, room for a great expansion of this grade to include a number of male state-registered nurses with some training in V.D.-clinic routine, microscopy, and perhaps the manipulation of a simple serological screen test. I am convinced that much of the dispensary work in a hospital district, including the preventive treatment of V.D. would be far more efficiently done by this type of worker than by the Indians or Africans now largely responsible for it.

The tremendous reputation of the arsenicals in yaws and the fact that the intravenous injection is often tasted by the recipient have convinced the African that this is indeed strong medicine, and powerful propaganda is needed to persuade him that the new agent is superior to the old. As well as this, the intravenous arsenicals have acquired a reputation as a panacea with a special bearing on sexual potency, and some unscrupulous practitioners have pandered to this superstition by selling single injections for high fees. Black-market medicine is as popular in Africa as it is at home and free treatment is still suspect in many quarters.

Two members of the M.S.S.V.D. are soon to take charge of anti-V.D. projects abroad under the auspices of the World Health Organization, one in a self-governing dominion and the other in a foreign country. In wishing both of them the success that

I feel certain they will have, I am saddened to think that their experience could not have been made available in our colonial empire where the problems confronting them would have been every bit as important and interesting and where the help they might have given would have redounded to our credit as a great colonial power.

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